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10/779,419	02/13/2004	Robert H. Wollenberg	T-6318A (538-69)	9057

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Michael E. Carmen, Esq.
M. CARMEN & ASSOCIATES, PLLC
Suite 400
170 Old Country Road
Mineola, NY 11501

EXAMINER	
LUNDGREN, JEFFREY S	

ART UNIT	PAPER NUMBER
1639	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/779,419	WOLLENBERG, ROBERT H.	
	Examiner	Art Unit	
	Jeff Lundgren	1639	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *26 November 2007*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-17,62 and 63* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-17, 62 and 63* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *12/13/2007*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Status of the Claims

Claims 1-17, 62 and 63 are pending in the instant application, and are the subject of the Office Action below.

Claim Rejections - 35 USC § 112

The rejections under 35 USC § 112, second paragraph, have been overcome by the amendment to claim 1, wherein the "results" were clarified, and relate to the "results" in claim 14; and amended claims 5, 9 and 10, wherein the temperatures and time periods were clarified.

The rejection of claim 16 as being indefinite, is maintained. Applicants allege that the claim is not indefinite, and one of ordinary skill in the art would understand what is being claimed, and point to certain portions of the disclosure for support. Applicants arguments have been considered, but are found unpersuasive.

Claim 16 appears to have no positive, active steps (i.e., "using the results of step (b) as a basis for obtaining a result of further calculations), and the term "basis" is confusing because it is not clear if this term is intended to provide any method steps. The rejection is maintained.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

The rejection of claims 1, 2 and 8, under 35 U.S.C. § 102(b) as being anticipated by Heneghan et al., JOURNAL OF ENGINEERING FOR GAS TURBINES AND POWER-TRANSACTIONS OF THE ASME, (JUL 1993) Vol. 115, No. 3, pp. 480-485), is maintained.

Applicants allege that the art of Heneghan is not applicable because it is not directed to a "high throughput" method (pages 10 and 11). Applicants' arguments have been fully considered, but are not found persuasive for the following reasons.

In the instant case, the phrase "high throughput" is part of the preamble, and bears very little patentable weight, if any. As explained in MPEP § 2111.02, the determination of whether a preamble limits a claim is made on a case-by-case basis in light of the facts in each case; there is no litmus test defining when a preamble limits the scope of a claim. *Catalina Mktg. Int 'l v. Coolsavings.com, Inc.*, 289 F.3d 801, 808, 62 USPQ2d 1781, 1785 (Fed. Cir. 2002).

Regarding the amount of weight given to the preamble, the court has also ruled that "[i]f the claim preamble, when read in the context of the entire claim, recites limitations of the claim, or, if the claim preamble is necessary to give life, meaning, and vitality' to the claim, then the claim preamble should be construed as if in the balance of the claim." Pitney Bowes, Inc. v. Hewlett-Packard Co., 182 F.3d 1298, 1305, 51 USPQ2d 1161, 1165-66 (Fed. Cir. 1999). In this particular case, the court found that the field of use and the body of the claim merited weight, based on the "photoreceptor" "shapes" and "spots" limitations:

> "The preamble statement that the patent claims a method of or apparatus for "producing on a photoreceptor an image of generated shapes made up of spots" is not merely a statement describing the invention's intended field of use. Instead, that statement is intimately meshed with the ensuing language in the claim. For example, both independent claims conclude with the clause "whereby the appearance of smoothed edges are given to the generated shapes". Because this is the first appearance in the claim body of the term "generated shapes", the term can only be understood in the context of the preamble statement "producing on a photoreceptor an image of generated shapes made up of spots". Similarly, the term "spots" is initially used in the preamble to refer to the elements that make up the image of generated shapes that are produced on the photoreceptor."

Id., at 1166.

To the contrary, the phrase "high-throughput" is at best, an intended use. Furthermore, the term is a relative term to the rate at which samples are analyzed. For example, the term does not necessarily require that thousands of sample be run in a timeframe of less than an hour. The instruments of Heneghan are reasonably considered "high throughput" instruments in comparison to actually operating jets in the normal manner and testing them after years of flying.

Claim 1 is directed to a method for screening fuel additives in fuel compositions by measuring deposit formation, and outputting the result.

Heneghan teaches a method for measuring the performance of fuel additives in a plurality of fuel samples, wherein a measured performance criteria is measuring deposit formation from the fuel sample (see item 4 on page 481; item 7 on page 482; and Figure and description thereof).

As in claim 2, Heneghan teaches that one of the fuel additives is an anti-icing additive (page 484, col. 1, first full paragraph). As in claim 8, Heneghan teaches that the heating is carried out in the presence of air (page 481, first partial paragraph; *i.e.*, nitrogen/oxygen mixture).

The rejection of claims 1-6 and 8-11, rejected under 35 U.S.C. 102(b) as being anticipated by Cherpeck, U.S. Patent No. 5,399,178, issued on March 21, 1995, is maintained.

Applicants allege that the art of Cherpeck is not applicable because it is not directed to a "high throughput" method (pages 11 and 12). Applicants' arguments have been fully considered, but are not found persuasive.

In the instant case, the phrase "high throughput" is part of the preamble, and bears very little patentable weight, if any. As explained in MPEP § 2111.02, the determination of whether a preamble limits a claim is made on a case-by-case basis in light of the facts in each case; there is no litmus test defining when a preamble limits the scope of a claim. *Catalina Mktg. Int 'l v. Coolsavings.com, Inc.*, 289 F.3d 801, 808, 62 USPQ2d 1781, 1785 (Fed. Cir. 2002).

Regarding the amount of weight given to the preamble, the court has also ruled that "[i]f the claim preamble, when read in the context of the entire claim, recites limitations of the claim, or, if the claim preamble is necessary to give life, meaning, and vitality' to the claim, then the claim preamble should be construed as if in the balance of the claim." Pitney Bowes, Inc. v. Hewlett-Packard Co., 182 F.3d 1298, 1305, 51 USPQ2d 1161, 1165-66 (Fed. Cir. 1999). In this particular case, the court found that the field of use and the body of the claim merited weight, based on the "photoreceptor" "shapes" and "spots" limitations:

> "The preamble statement that the patent claims a method of or apparatus for "producing on a photoreceptor an image of generated shapes made up of spots" is not merely a statement describing the invention's intended field of use. Instead, that statement is intimately meshed with the ensuing language in the claim. For example, both independent claims conclude with the clause "whereby the appearance of smoothed edges are given to the generated shapes". Because this is the first appearance in the claim

> body of the term "generated shapes", the term can only be understood in the context of the preamble statement "producing on a photoreceptor an image of generated shapes made up of spots". Similarly, the term "spots" is initially used in the preamble to refer to the elements that make up the image of generated shapes that are produced on the photoreceptor."

Id., at 1166.

To the contrary, the phrase "high-throughput" is at best, an intended use. Furthermore, the term is a relative term to the rate at which samples are analyzed. For example, the term does not necessarily require that thousands of sample be run in a timeframe of less than an hour.

Claim 1 is directed to a method for screening fuel additives in fuel compositions by measuring deposit formation, and outputting the result.

Cherpeck teaches a series of chemical compound analogs that serve as fuel additives. Cherpech teaches testing of multiple fuels samples by measuring their deposit formation (see Example 3). As in claims 2 and 3, the additives of Cherpeck are detergents, such as Mannich reaction products, and also meet the limitations of claim 4. As in claim 5, Cherpeck teaches heating the sample to a predetermined temperature for a predetermined period of time, and measuring the weight loss to determine deposit formation mass. As in claim 6, Cherpeck teaches that the temperature is *about* 100 °C (*i.e.*, 200 °F). As in claim 8, Cherpeck teaches heating the sample in the presence of air (see Example 3). As in claims 9 and 10, Cherpeck measures the deposits after two temperatures, wherein the second temperature is higher than the first (see Example 1). As in claim 11, Cherpeck teaches the inert solvent octane.

The rejection of claims 1-11, under 35 U.S.C. 102(b) as being anticipated by Cherpeck 2, U.S. Patent No. 5,306,315, issued on April 26, 1994, is maintained.

Again, Applicants allege that the art of Cherpeck 2 is not applicable because it is not directed to a "high throughput" method (pages 12 and 13). Applicants' arguments have been fully considered, but are not found persuasive.

In the instant case, the phrase "high throughput" is part of the preamble, and bears very little patentable weight, if any. As explained in MPEP § 2111.02, the determination of whether a preamble limits a claim is made on a case-by-case basis in light of the facts in each case; there is

no litmus test defining when a preamble limits the scope of a claim. *Catalina Mktg. Int 'l v. Coolsavings.com, Inc.*, 289 F.3d 801, 808, 62 USPQ2d 1781, 1785 (Fed. Cir. 2002).

Regarding the amount of weight given to the preamble, the court has also ruled that "[i]f the claim preamble, when read in the context of the entire claim, recites limitations of the claim, or, if the claim preamble is necessary to give life, meaning, and vitality' to the claim, then the claim preamble should be construed as if in the balance of the claim." Pitney Bowes, Inc. v. Hewlett-Packard Co., 182 F.3d 1298, 1305, 51 USPQ2d 1161, 1165-66 (Fed. Cir. 1999). In this particular case, the court found that the field of use and the body of the claim merited weight, based on the "photoreceptor" "shapes" and "spots" limitations:

> "The preamble statement that the patent claims a method of or apparatus for "producing on a photoreceptor an image of generated shapes made up of spots" is not merely a statement describing the invention's intended field of use. Instead, that statement is intimately meshed with the ensuing language in the claim. For example, both independent claims conclude with the clause "whereby the appearance of smoothed edges are given to the generated shapes". Because this is the first appearance in the claim body of the term "generated shapes", the term can only be understood in the context of the preamble statement "producing on a photoreceptor an image of generated shapes made up of spots". Similarly, the term "spots" is initially used in the preamble to refer to the elements that make up the image of generated shapes that are produced on the photoreceptor."

Id., at 1166.

To the contrary, the phrase "high-throughput" is at best, an intended use. Furthermore, the term is a relative term to the rate at which samples are analyzed. For example, the term does not necessarily require that thousands of sample be run in a timeframe of less than an hour.

Claim 1 is directed to a method for screening fuel additives in fuel compositions by measuring deposit formation, and outputting the results, including detergents, and is met by the analysis of multiple fuel additive samples, as in claims 2 and 3. Claims 5-7 is directed to measuring mass differences by TGA with certain intervals for temperature and time; claim 8 includes air as a component; claims 9 and 10 are directed to measuring mass difference at two different temperatures, where the second temperature is higher than the first.

Cherpeck 2 teaches measuring fuel deposits by TGA in the presence of air, and teaches raising the termperatures and measuring the deposits at different temperatures (see Example 14),

and accordingly meets the limitations of claims 1 and 5-10. The compounds class of claim 4 (polyalkylphenoxyalkanols), is met by the compounds in Example 2. As in claim 2, 3 and 11, Cherpeck 2 teaches an inert organic solvent (fourth paragraph, Summary of the Invention).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. § 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. § 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 1-6, 8-13, 15 and 17, are obvious over Cherpeck and Burow:

The rejection of claims 1-6, 8-13, 15 and 17, under 35 U.S.C. § 103(a) as being unpatentable over Cherpeck, U.S. Patent No. 5,399,178, issued on March 21, 1995, in view of Burow *et al.*, U.S. Patent Application Publication No. 2002/0090320 A1, published on July 11, 2002, is maintained.

Applicants allege that the combination of the references that the Examiner has relied upon is improper under 35 U.S.C. § 103(a), because there is no "motivation or suggestion" to select the combined references. Applicants allege that because Cherpeck is directed to the study of fuel samples and Burow is directed to the study of different chemical composition, that one could not rely on Burow's teachings of automation (claim 12), robotic assembly (claim 13), outputting onto a data carrier (claim 15), and transmitting the data (claim 17), as a compatible

teaching to enhance the fuel additives and testing method advancements of Cherpeck. Applicants' arguments have been considered, but are not persuasive.

Those of ordinary skill in the art of analytical chemistry, are typically well-versed in routine automation procedures and general computer implementation, as set forth in claims 12, 13, 15 and 17, as demonstrated by Burow. It is a stretch to suggest that the use of machines and computers belongs exclusively to those who perform analysis of the type of samples taught by Burow, or that such automation has not broken through to the claimed art and been well-recognized by those who develop and screen new fuel additive samples as taught by Cherpeck.

In fact Burow quite clearly states that this is not the case as suggested by Applicants:

> "***Automated processing systems are useful in many applications and fields***. For example, automated laboratory systems are used in biotechnology and biomedical industries, e.g., for producing large numbers of samples and screening these samples for a desired property. Such samples include, but are ***not limited to, chemicals, cells, cell extracts, or genetic material such as cDNA, retroviruses, or anti-sense oligonucleotides***."

Burow, col. 1, paragraph 0003 (emphasis added).

Cherpeck teaches a series of chemical compound analogs that serve as fuel additives. Cherpech teaches testing of multiple fuels samples by measuring their deposit formation (see Example 3). As in claims 2 and 3, the additives of Cherpeck are detergents, such as Mannich reaction products, and also meet the limitations of claim 4. As in claim 5, Cherpeck teaches heating the sample to a predetermined temperature for a predetermined period of time, and measuring the weight loss to determine deposit formation mass. As in claim 6, Cherpeck teaches that the temperature is *about* 100 °C (*i.e.*, 200 °F). As in claim 7, Cherpeck teaches thermal gravimetric analysis. As in claim 8, Cherpeck teaches heating the sample in the presence of air (see Example 3). As in claims 9 and 10, Cherpeck measures the deposits after two temperatures, wherein the second temperature is higher than the first (see Example 1). As in claim 11, Cherpeck teaches the inert solvent octane.

Cherpeck does not explicitly teach the robot assembly for positioning samples as in claim 12; the computer that controls the robot assembly as in claim 13; the storing of the data on a data

carrier as in claim 15; and transmitting results to a data carrier at a remote location as in claim 17.

Burow is directed to a system and method for high throughput processing using sample holders. As in claim 12, the system has a plurality of work perimeters, with a rotational robot preferably associated with each work perimeter, wherein the system and method are flexible, efficient, and robust high throughput processing, such as screening of chemical and/or biochemical libraries (see *Summary of the Invention*). As in claim 13, Burow teaches the linking of the system components with the robot for full automation, and control by a computer (paragraphs 0073 and 0074). As in claim 15, Burow teaches recording the data on a data carrier (paragraph 0093); and as in claim 17, the data carrier is in a remote location from the robot assembly (paragraph 0136).

One of ordinary skill in the art would have had a reasonable expectation of success in arriving at the invention as claimed because each of Cherpeck and Burow are directed to using analytical laboratory instrumentation for chemical analysis. One of ordinary skill in the art would have recognized the advantages of using generic and routine robotic based systems, computers, and remote operations as taught by Burow for the types of chemical analysis of Cherpeck because of the increase throughput provided by these assemblies when dealing with voluminous sample sizes. Accordingly, the invention as a whole is *prima facie* obvious over the art of record.

Claims 1-11, 62 and 63, are obvious over Cherpeck 2:

Claims 1-11 and 62 and 63, are rejected under 35 U.S.C. 103(a) as being unpatentable by Cherpeck 2, U.S. Patent No. 5,306,315, issued on April 26, 1994.

Claim 1 is directed to a method for screening fuel additives in fuel compositions by measuring deposit formation, and outputting the results, including detergents, and is met by the analysis of multiple fuel additive samples, as in claims 2 and 3. Claims 5-7 is directed to measuring mass differences by TGA with certain intervals for temperature and time; claim 8 includes air as a component; claims 9 and 10 are directed to measuring mass difference at two different temperatures, where the second temperature is higher than the first.

Cherpeck 2 teaches measuring fuel deposits by TGA in the presence of air, and teaches raising the termperatures and measuring the deposits at different temperatures (see Example 14), and accordingly meets the limitations of claims 1 and 5-10. The compounds class of claim 4 (polyalkylphenoxyalkanols), is met by the compounds in Example 2. As in claim 2, 3 and 11, Cherpeck 2 teaches an inert organic solvent (fourth paragraph, Summary of the Invention).

Although Cherpeck does not explicitly recite "about 50 ml" and "about 20 ml," as in claim 62 and 63, Cherpeck 2 teaches a mass of the fuel additive samples of approximately 25 mg, thereby reading on the limitations of "about 50 ml" and "about 20 ml".

One of ordinary skill in that art would have had a reasonable expectation of success in arriving at the invention as claimed because Cherpeck 2 teaches the analysis of fuel samples using TGA with an approximate sample size reasonably close to the claimed sample size, especially given the claimed language of "about" in claims 62 and 63 (see MPEP § 2144.05). Therefore, the invention as a whole was *prima facie* obvious at the time it was made.

Claims 1-6, 8-15 and 17, are obvious over Cherpeck and Burow:

Claims 1-6, 8-13, 15 and 17, are rejected under 35 U.S.C. § 103(a) as being unpatentable over Cherpeck, U.S. Patent No. 5,399,178, issued on March 21, 1995, in view of Burow *et al.*, U.S. Patent Application Publication No. 2002/0090320 A1, published on July 11, 2002, and Luttermann *et al.*, U.S. Patent No. 6,713,264, issued on March 30, 2004.

Cherpeck teaches a series of chemical compound analogs that serve as fuel additives. Cherpech teaches testing of multiple fuels samples by measuring their deposit formation (see Example 3). As in claims 2 and 3, the additives of Cherpeck are detergents, such as Mannich reaction products, and also meet the limitations of claim 4. As in claim 5, Cherpeck teaches heating the sample to a predetermined temperature for a predetermined period of time, and measuring the weight loss to determine deposit formation mass. As in claim 6, Cherpeck teaches that the temperature is *about* 100 °C (*i.e.*, 200 °F). As in claim 7, Cherpeck teaches thermal gravimetric analysis. As in claim 8, Cherpeck teaches heating the sample in the presence of air (see Example 3). As in claims 9 and 10, Cherpeck measures the deposits after two temperatures, wherein the second temperature is higher than the first (see Example 1). As in claim 11, Cherpeck teaches the inert solvent octane.

Cherpeck does not explicitly teach the robot assembly for positioning samples as in claim 12; the computer that controls the robot assembly as in claim 13; the storing of the data on a data carrier as in claim 15; and transmitting results to a data carrier at a remote location as in claim 17. Cherpeck also does not explicitly teach using a computer for selecting positive/rejecting negative samples for further assays.

Burow is directed to a system and method for high throughput processing using sample holders. As in claim 12, the system has a plurality of work perimeters, with a rotational robot preferably associated with each work perimeter, wherein the system and method are flexible, efficient, and robust high throughput processing, such as screening of chemical and/or biochemical libraries (see *Summary of the Invention*). As in claim 13, Burow teaches the linking of the system components with the robot for full automation, and control by a computer (paragraphs 0073 and 0074). As in claim 15, Burow teaches recording the data on a data carrier (paragraph 0093); and as in claim 17, the data carrier is in a remote location from the robot assembly (paragraph 0136).

Lutternmann teaches a process for screening of molecules from molecule libraries with regard to their individual properties (see Abstract). Luttermann performs an assay on the library, and the set of compounds meeting a certain threshold/cutoff value, are passed for further testing, while compounds not meeting this value are not further tested, and are all computer controlled (see Detailed Description of Invention – cols. 4-9).

One of ordinary skill in the art would have had a reasonable expectation of success in arriving at the invention as claimed because each of Cherpeck, Burow and Lutterman, are directed to using analytical laboratory instrumentation for chemical analysis. One of ordinary skill in the art would have recognized the advantages of using generic and routine robotic based systems, computers, and remote operations as taught by Burow for the types of chemical analysis of Cherpeck because of the increase throughput provided by these assemblies when dealing with voluminous sample sizes. Furthermore, one of ordinary skill in the art would have recognized that combinatorial approaches using decision making processes for selection of positive samples for further testing as taught by Lutterman is well-suited for large sample sets. Accordingly, the invention as a whole is *prima facie* obvious over the art of record.

Common Ownership of Claimed Invention Presumed

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the Examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR § 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the Examiner to consider the applicability of 35 U.S.C. § 103(c) and potential 35 U.S.C. §§ 102(e), (f) or (g) prior art under 35 U.S.C. § 103(a).

Conclusions

No claim is allowable.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

If Applicants should amendment the claims, a complete and responsive reply will clearly identify where support can be found in the disclosure for each amendment. Applicants should point to the page and line numbers of the application corresponding to each amendment, and provide any statements that might help to identify support for the claimed invention (*e.g.*, if the amendment is not supported *in ipsis verbis*, clarification on the record may be helpful). Should

Applicants present new claims, Applicants should clearly identify where support can be found in the disclosure.

Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Jeff Lundgren whose telephone number is 571-272-5541. The Examiner can normally be reached from 7:00 AM to 5:30 PM.

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, James Schultz, can be reached on 571-272-0763. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

JSL

/Jon D. Epperson/
Primary Examiner, AU 1639